

Lake Levels

High lake levels at Center Hill put stress on the weakened foundation and increase seepage. The lowering of Center Hill Lake is intended to decrease pressure on the foundation, reducing the progression of seepage, as well as lessening downstream damages in the unlikely event of a dam failure.

In February 2008, a decision was made through an Environmental Impact Statement process, to target the lake elevation at 630 feet above mean sea level (msl) in the summer and no lower than 618 msl in the winter. (Normal lake elevations range from about 648 msl in the summer to about 631 msl in the winter.) The goal of the target levels is to balance the safety of the downstream human and natural environment against the reduction of project benefits and impacts to water supply, water quality, recreation, navigation, and hydropower.

This interim lake operation will be reevaluated toward the end of the first grouting contract (January 2010) to determine if Center Hill Lake can be safely raised, maintained, or if further lowering is necessary to ensure safety.

Water Management in Cumberland River System

The lake restriction at Center Hill, coupled with ongoing lake restrictions at Wolf Creek Dam's reservoir upstream, significantly reduces the amount of water in storage in the Cumberland River Basin reservoir system. The impacts of reduced water availability throughout the Cumberland River Basin are most critical in the summer and fall.

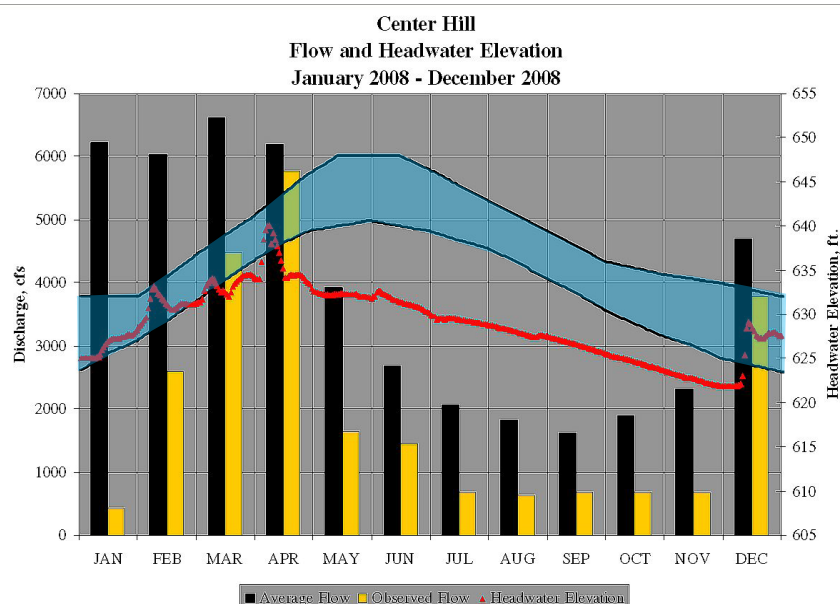
The Corps has developed an Interim Operating Plan (IOP) for management of the reservoir system during the time these pool restrictions are in place. The IOP establishes priorities that water managers will follow during this period of limited water. The priorities are: 1) water supply; 2) water quality; 3) navigation; 4) hydropower; and 5) recreation.

The Corps operated according to these guidelines in 2007 and 2008 a year of severe drought and excessive summer heat. We will continue to operate according to these guidelines in 2009. The IOP may be viewed at this website:

<http://www.lrn.usace.army.mil/CenterHill/>

Summary

The Nashville District Corps of Engineers operates the Cumberland River Basin as a coordinated system. Lake restrictions at Wolf Creek and Center Hill coupled with ongoing severe drought have made the past two years extremely challenging. The future is bright, however, with continued construction progress on Wolf Creek and Center Hill seepage repair work. As construction milestones are met, the Corps will assess the possibility of incrementally raising the lake at these two vital storage projects. Once the work is complete, the system will be better than ever and normal water management operation can resume.

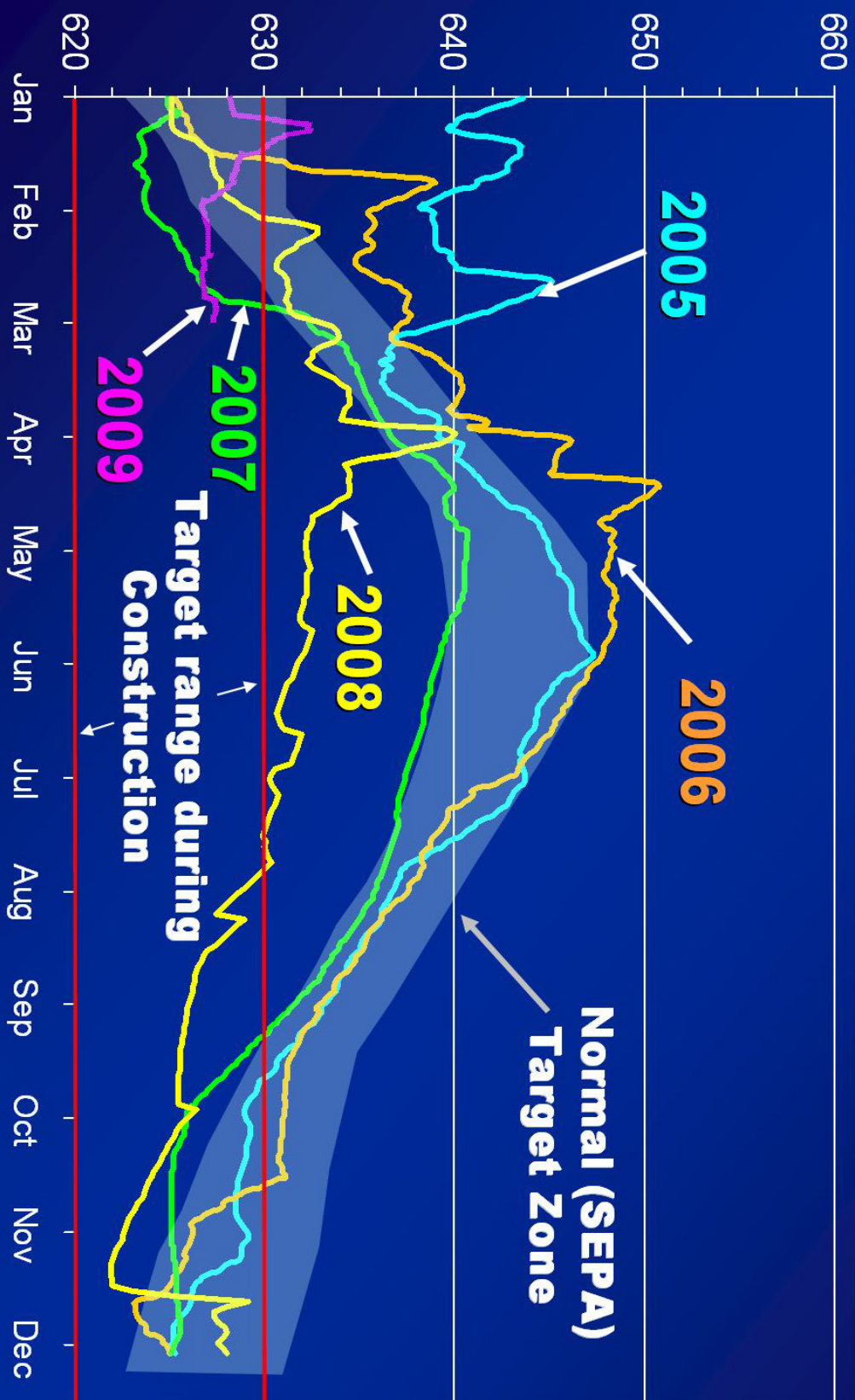


The yellow bars in this graph show 2008 water releases (discharge) from the dam, demonstrating the year's discharge was significantly lower than average releases, indicated by the black bars. The red line indicates lake elevation throughout 2008 as compared to the normal operating range, shown by the light blue shaded area.



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Lake Level Restrictions



This chart shows the normal target zone for Center Hill lake levels throughout the year (light blue shaded area), the current target during construction (red lines), and actual lake levels in recent years.